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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,242	01/16/2004	Shi-dong Zhou	X-1401 US	7069

24309 7590 03/21/2005

XILINX, INC  
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EXAMINER
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TAN, VIBOL

ART UNIT	PAPER NUMBER
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2819

DATE MAILED: 03/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/759,242

Applicant(s)

ZHOU, SHI-DONG

Examiner

Vibol Tan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 31-53 is/are allowed.
- 6) ☒ Claim(s) 1, 11-16, 19 and 26-30 is/are rejected.
- 7) ☒ Claim(s) 2-10, 17, 18 and 20-25 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/16/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14, 15 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "the first transistor...and the second transistor" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 is rejected in the same manner as claim 14.

Claim 19 recites the limitation "the configuration memory cells" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 11, 16 and 27-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Cliff et al. (U. S. PAT. 5,50,782).

In claim 1, Cliff et al. teaches all claimed features in Fig. 9, an integrated circuit (IC) comprising: a first number of configurable elements (programmable logic elements 20s); and a second number of configuration control circuits (45s), each having an output

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(49) to control the configuration of one or more corresponding configurable elements (20s), and each comprising: a first input (40) connected to a first configuration bit (programming bit); a second input (42) connected to a second configuration bit (second programming bit); and a select circuit (45) to selectively provide either the first configuration bit or the second configuration bit to the one or more corresponding configurable elements in response to a select signal (47).

In claim 11, Cliff et al. further teaches the IC of Claim 1, wherein the select circuit comprises a multiplexer (45).

In claim 16, Cliff et al. further teaches wherein the select signal (47) is generated with in the IC.

In claim 27, Cliff et al. further teaches wherein the configurable element comprises a multiplexer (45).

In claim 28, Cliff et al. further teaches wherein the configurable element comprises a logic gate (multiplexer 45 is a logic gate).

In claim 29, Cliff et al. further teaches in Fig. 4 wherein the configurable element comprises a look-up table (30).

In claim 30, Cliff et al. further teaches wherein the configurable control circuits further comprises one or more additional inputs (43) each connected one or more corresponding configuration bits, wherein the select circuit (45) selectively provides one of the first, second, or one or more configuration bits to the one or more corresponding configurable elements (20s) in response to the select signal (47).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12, 13 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cliff et al. in view of Hamada et al. (U. S. PAT. 6,373,291).

In claim 12, Cliff et al. teaches all claimed features of the IC of claim 1, with the exception of teaching wherein the select circuit comprises an inverter. However, Hamada et al. teaches in Fig. 1 a select circuit comprises an inverter (INV1).

Therefore; it would have been obvious to one ordinary skill in the art at the time of the invention was made to combine the teachings of Cliff et al. with the teachings of Hamada et al. because the inverter (INV1) produces the inverted signal S to control the selection of inputs.

In claim 13, Cliff et al. teaches all claimed features of the IC of claim 1, with the exception of teaching wherein the select circuit comprises a first transistor and a second transistor. However, Hamada et al. teaches in Fig. 1, a select circuit comprises: a first transistor (PM1) connected between the first input (B) and the output (Z) and having a gate responsive to the select signal (S); and a second transistor (NM1) connected between the second input (A) and the output (Z) and having a gate responsive to a complement of the select signal (inverted S).

Therefore; it would have been obvious to one ordinary skill in the art at the time of the invention was made to combine the teachings of Cliff et al. with the teachings of

Hamada et al. because the selection circuit of Hamada et al. is faster; thus reducing power consumption.

In claim 26, Cliff et al. teaches all claimed features of the IC of claim 1, with the exception of teaching wherein the configurable element comprises a pass gate.

However, Hamada et al. teaches in Fig. 1, the configurable element comprises a pass gate (PM1).

7. Claims 2-10, 17, 18 and 20-25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 31-53 appear to comprise allowable subject matters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vibol Tan whose telephone number is (571) 272-1811. The examiner can normally be reached on Monday-Friday (7:00 AM-4:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike J. Tokar can be reached on (571) 272-1812. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**VIBOL TAN**  
**PRIMARY EXAMINER**